

# 7" LCD Video Surveillance System with 2 Indoor/Outdoor Day/Night Cameras

## Instruction Manual

English Version 1.0



**MODEL:**  
**SHS-2S7LD Series**



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Thank you for purchasing the SHS-2S7LD. Lorex is committed to providing our customers with a high quality, reliable security product.

To learn more about this Video Surveillance Product, and to learn about our complete range of accessory products, please visit our website at:

<http://www.lorexcctv.com>

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO A QUALIFIED SERVICE PERSONNEL</b>		
	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.	
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.	
<b>WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.</b>		
<b>CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.</b>		

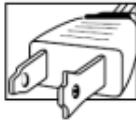
# Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacture process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and proper use of the video product and accessory equipment. Please read them carefully before operating and using your video product.

## Installation

1. **Read and Follow Instructions** - All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - Comply with all warnings on the video product and in the operating instructions.
4. **Polarization** - Do not defeat the safety purpose of the polarized or grounding-type plug.

A polarized plug has two blades with one wider than the other.



A grounding type plug has two blades and a third grounding prong.

The wide blade or the third prong are provided for your safety.



If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

5. **Power Sources** - This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.
6. **Overloading** - Do not overload wall outlets of extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
7. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the video product.

8. **Ventilation** - Slots and openings in the case are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video equipment on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.

9. **Attachments** - Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.

10. **Water and Moisture** - Do not use this video product near water. For example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.

Caution: Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark of CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

11. **Accessories** - Do not place this video equipment on an unstable cart, stand, tripod, or table. The video equipment may fall, causing serious damage to the video product. Use this video product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.



## Service

13. **Servicing** - Do not attempt to service this video equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. **Conditions Requiring Service** - Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
  - A. When the power supply cord or plug is damaged.
  - B. If liquid has been spilled or objects have fallen into the video product.
  - C. If the video product has been exposed to rain or water.
  - D. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
  - E. If the video product has been dropped or the cabinet has been damaged.
  - F. When the video product exhibits a distinct change in performance. This indicates a need for service.
15. **Replacement Parts** - When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards.
16. **Safety Check** - Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.
17. **Wall or Ceiling Mounting** - The cameras provided with this system should be mounted to a wall or ceiling only as instructed in this guide, using the provided mounting brackets.
18. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## Use

19. **Cleaning** - Unplug the video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
20. **Product and Cart Combination** - Video and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the video product and car combination to overturn.
21. **Object and Liquid Entry** - Never push objects for any kind into this video product through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.
22. **Lightning** - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

## NOTE

This equipment has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows this manual's guidelines to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury.

In order to improve the feature functions and quality of this product, the specifications are subject to change without notice from time to time.

## FCC CLASS B NOTICE

**Note:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for assistance

## General Precautions

1. All warnings and instructions of this manual should be followed
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water dampened cloth for cleaning
3. Do not use this unit in humid or wet places
4. Keep enough space around the unit for ventilation. Slots and openings in the storage cabinet should not be blocked
5. During lightning storms, or when the unit is not used for a long time, disconnect the power supply, antenna, and cables to protect the unit from electrical surge

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# SHS-2S7LD Features

## Monitor:

- 7" TFT LCD Monitor
- 2 channels with auto scanning function that switches between cameras
- Easy connection to TV, VCR or Monitor with the included A/V cable
- OSD (On-screen Display)
- Small footprint - fits on a desk like a picture frame
- Wall mountable or Desk stand

## Cameras:

- Two color indoor/outdoor cameras with audio included
- Plug and Play Cameras: All-in-one camera cable (with Video, Audio & Power) plugs directly to the monitor and eliminates the need for a separate power adaptor
- 11 Hi Intensity IR LEDs provides effective night vision range of 13 ft. (4 m)\*
- Day / Night mode: Picture automatically switches camera to B&W delivering better clarity in low light conditions
- Built in microphone provides listen-in function from the camera to monitor
- Weather resistant IP 44 certified camera in zinc alloy housing for indoor/ outdoor use\*\*
  - \* IR illumination range up to 13ft (4M) under ideal conditions. Objects at or beyond this range may be partially or completely obscured, depending on the camera application.
  - \*\* Not for use in direct exposure to water, rain or snow

## Getting Started

The SHS-2S7LD comes with the following components:



**1 x 7" LCD Monitor**



**1 x Monitor Stand**



**1 x Wall Mount Bracket  
1 x Mounting Screws**



**2 x Cameras with Stands**



**2 x 60' (18m) Extension  
Cables**



**2 x Phone Jack to RCA  
Camera Connector Cables**



**1 x AV Cable**

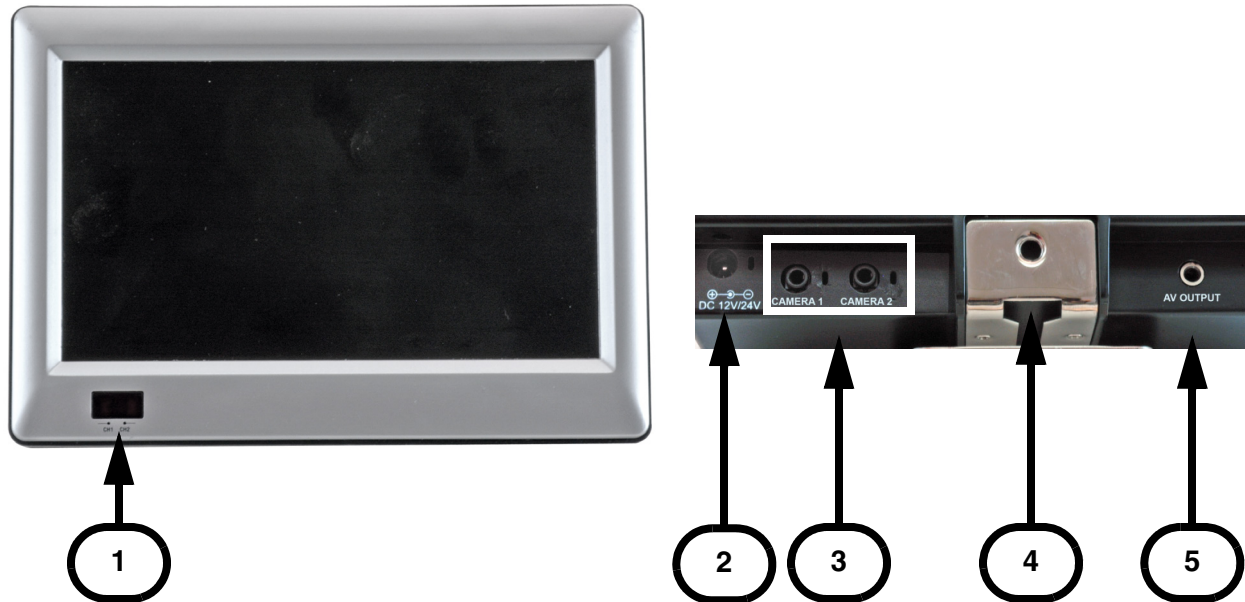


**1 x Power  
Adapter**

**CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.**



## SHS-2S7LD - Front / Bottom Views



### Front

1. **CH1 / CH2 LED DISPLAY** - Indicates the currently displayed Camera number with a solid green LED indicator light.

When the System is in auto switching mode, a Green Blinking light will appear.

### Bottom

2. **DC 12V** - Connects the 12V DC Power adaptor.
3. **CAM1 ~ CAM2 INPUTS** - Camera inputs.
4. **STAND MOUNT** - Attachment point for the Stand.
5. **AV OUTPUT** - Connects the System to a secondary TV, Monitor or Recording Device. This option is not mandatory for use with the System.

## SHS-2S7LD - Side View

1. **VOLUME +/-** - Raises or Lowers the Volume from the System.

2. **FUNC BUTTON** - Controls the display settings for the Monitor:

- Press FUNC to cycle through the available options:

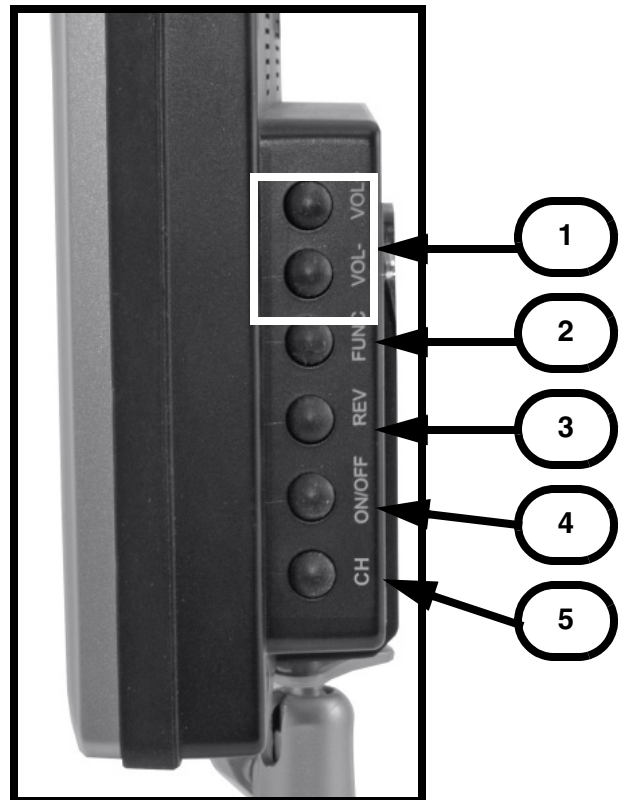
- Brightness (1 low ~ 99 high)
- Contrast (1 low ~ 99 high)
- Sharpness (1 low ~ 99 high)
- Color (1 low ~ 99 high)
- Hue (1 low ~ 99 high)
- Video (NTSC or PAL)\*
- VCOMA (1 low ~ 31 high)
- VCOMD (1 low ~ 31 high)

- Press the VOL +/- buttons to increase/decrease the setting values.

3. **REV BUTTON** - Changes the video display between Normal View, Mirrored View, 180° View or 180°/Mirrored View.

4. **ON/OFF BUTTON** - Turns the System On or OFF.

5. **CH BUTTON** - Switches between Camera 1 and Camera 2.



\* **NOTE:** Make sure that your Video Format Settings match the local Video Standards for your Region (i.e. NTSC for North America, PAL for Europe)

# Monitor Mount - Stand & Wall Mount

This system has a variety of Mounting Options. It can be placed on a Table or Countertop, can be attached to a stand or wall mounted.

## Counter / Table - Vertical

- Place the System in the desired viewing location. The system is designed to remain balanced when placed on any flat surface.



## Counter / Table - Picture Frame

- The built-in stand is designed to flip out providing a Picture Frame look and feel for the System.



## Stand Mount - Flexible Viewing Angles

- Screw the stand into the bottom of the System.
- Loosen the thumbscrew to adjust the angle of the monitor.
- Tighten the thumbscrew once the desired angle is set.
- The Stand can be screwed into a surface for added stability, or glued using the included peel-off adhesive.



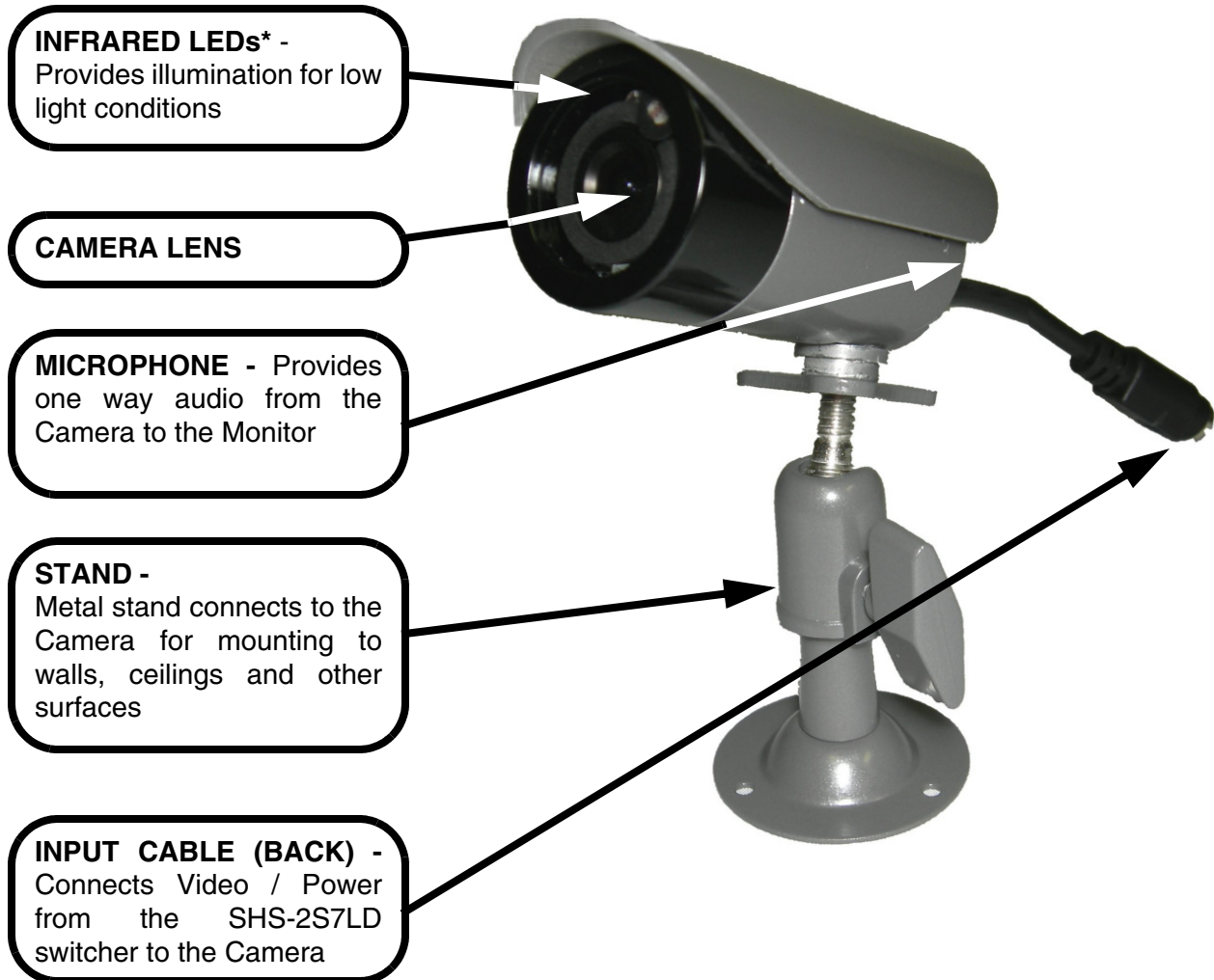
## Wall Mount:

- Use 4 screws to securely attach the Wall Mount Bracket to a wall.
- Make sure the 'L' part of the Bracket is at the bottom.
- Slide the Monitor onto the Bracket.



## SHS-2S7LD Cameras

The System includes 2 Color Day/Night\*, Indoor/Outdoor Cameras\*\* with built in microphone.



\* IR illumination range up to 13ft. (4M) under ideal conditions. Objects at or beyond this range may be partially or completely obscured depending on the camera application. Picture changes from Color to B&W under low light conditions.

\*\* IP44 Rating - Not for use in direct exposure to water, rain or snow

# Camera Installation

Before you install the camera, carefully plan where and how you will position the camera, and where you will route the cable that connects the camera to the SHS-2S7LD.

## Installation Warnings:

- Select a location for the camera that provides a clear view of the area you want to monitor, which is free from dust, and is not in line-of-sight to a strong light source or direct sunlight.
- Do not install the camera in a location where it will be
- Plan the cables' route so that it is not close to power or telephone lines, transformers, microwave ovens or other electrical equipment that could interfere with the system.
- Select a location for the camera that has an ambient temperature between 14°F~122°F (-10°C~50°C)
- If you plan to install the camera in a location that has conditions not recommended in this manual, consult with a professional installer and consider use of a separate camera cover or housing
- Before starting permanent installation, have another person hold the camera for you while you verify its performance by observing the image on the monitor.

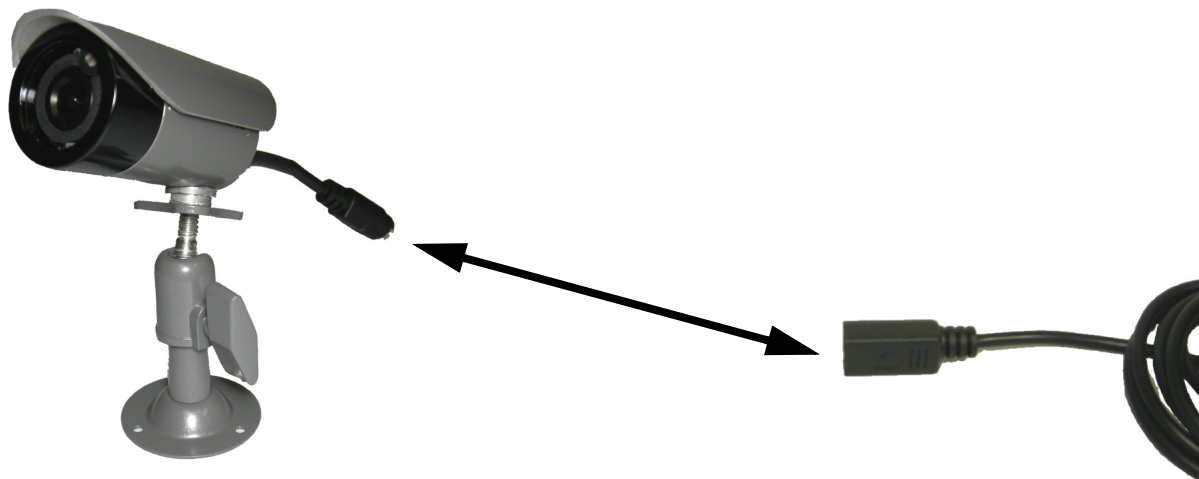
## Camera Stand Installation:

1. Attach the pedestal to the ceiling, wall or other surface by the base using the provided screws.
2. The mounting bracket must be attached to a structural device such as a wall stud or ceiling rafter using the supplied screws.
3. Attach the camera to the pedestal. Adjust the angle of the camera, and tighten the thumbscrew to set the position



## Connecting Cameras

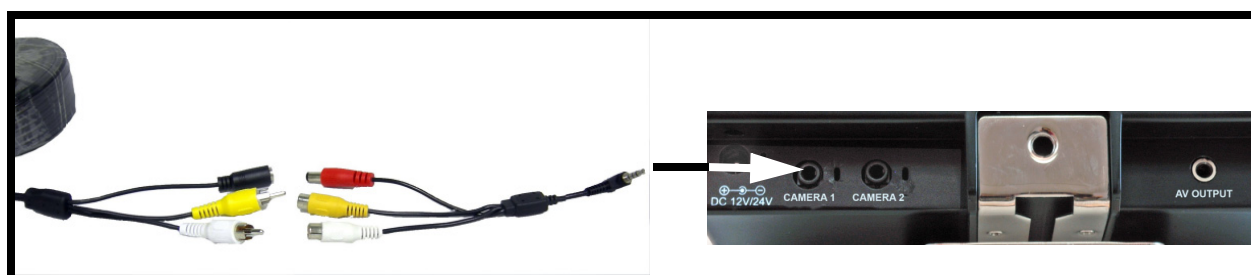
1. Connect the female end of the supplied 60' extension' cable to the camera.



**NOTE:** Confirm that the arrows on the DIN Camera Cable and the DIN Extension cable are pointed together when connecting the cable. If the pins in the DIN Cable are bent, the Camera will NOT function.



2. Connect the RCA end of the supplied 60' extension cable to the corresponding colored cables on the Camera Connector Cable.
3. Connect the Camera Connector Cable to CH1 or CH2 on the System.



60' Extension Cable  
DIN to RCA

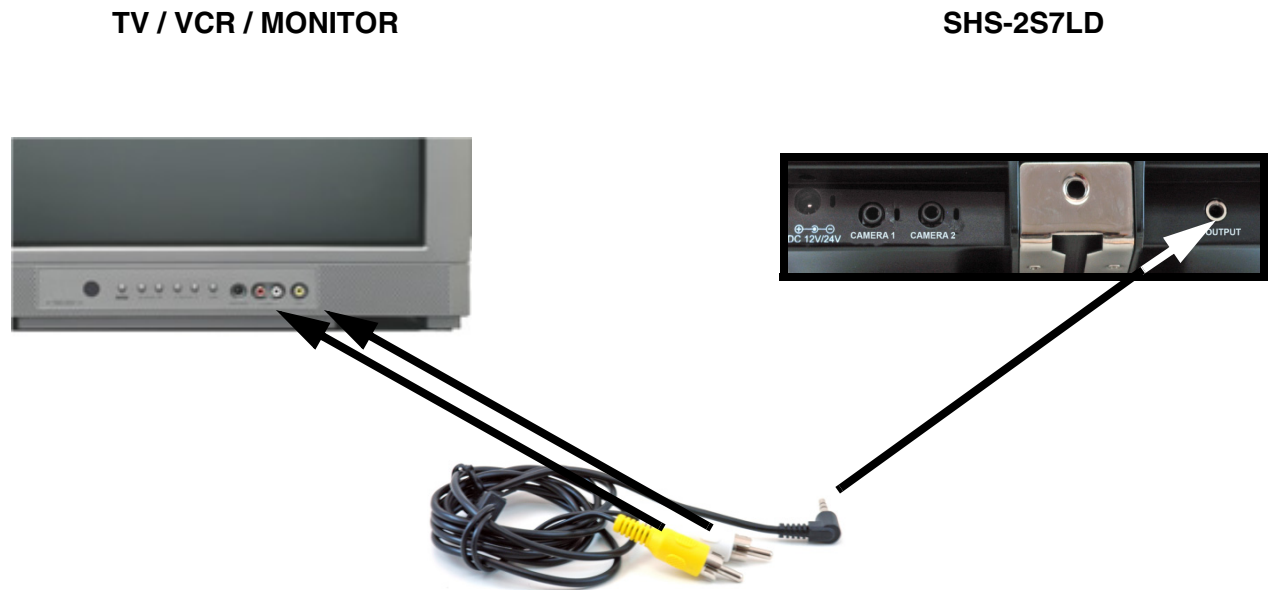
Camera Connector  
Cable

System - Rear Ports

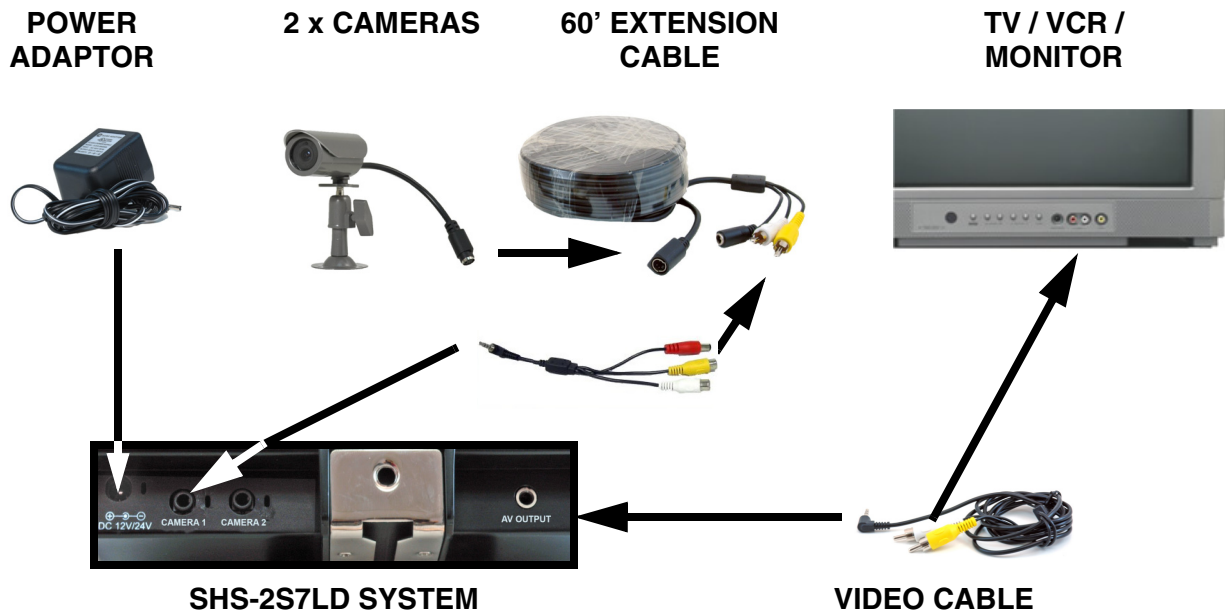
## (Optional) Connection to a TV / Monitor / VCR using the AV Cable

The system can be connected to a secondary Monitor or to a Recording Device (i.e. VCR or DVD-RW) using the included Audio/Video Cable. This allows you to simultaneously view images on another screen, or record the live video.

Connect the Phone Jack End of the Audio/Video Cable to the AV Output Port on the bottom of the System. Connect the other RCA end to the Monitor (Yellow: Video / White: Audio).



## Connectivity Diagram



## SHS-2S7LD System Specifications - Appendix #1

LCD	7"
Resolution	480 x 234
Monitor Display	Response Time: T-ON 15ms / T-OFF 20ms
Video Inputs	1 Vp-p @ 75 ohms
Audio Inputs	1 Vp-p @ 600 ohms
Audio Output	1 Vp-p @ 600 ohms
Audio	One way audio (from Camera to Monitor)
Supply Voltage	12 V DC; 1A; 50/60Hz
Power Consumption	Aprox. 800mA (IR ON)
Operating Temperature Range	14° ~ 122° F -10° ~ 50° C
Power Supply	12V DC 1500mA
Video Input	4 DIN
AV Output	1 DIN
Unit Weight	0.605 kg
Unit Dimensions	183 mm x 54 mm x 128mm (L x W x H)



## Camera Specifications - Appendix #2

Image Sensor	1/3" Color CMOS
Pixels	NTSC: 510 (H) x 492 (V) PAL: 628 (H) x 582 (V)
Video Format	NTSC / PAL
Horizontal Resolution	330 TV Lines
Scan System	NTSC: 525 Lines 2:1 Interlace PAL: 625 Lines 2:1 Interlace
Sync System	Internal
S/N Ratio	> 48 db
Iris	AES
AES Shutter Speed	NTSC: 1/60~1/100,000 sec. PAL: 1/50~1/100,000 sec.
Minimum Illumination	3 LUX without IR LED 8~15 LUX with IR LED
Video Output	1.0 Vp-p @75 ohm
Lens	4.5 mm Fixed
FOV (Diagonal)	NTSC: 52° (H) x 40° (V) PAL: 67° (H) x 48° (V)
Termination	4-Pin DIN
IR LED Night Vision Range	11 PCS IR LED / 1 PCS CDS 850nm / 4m (13')
IR LEDs	11 LEDs
Power Requirement	7.5 V DC +/- 10% (Powered by the Monitor)
Power Consumption	200mA (LED ON)
Operating Temperature	14° ~ 122° F -10° ~ 50° C
Environmental Rating	IP 44
Built-in Condenser Microphone	One way audio from the camera to the monitor

# It's all on the web



**Product Information**



**Specification Sheets**



**User Manuals**



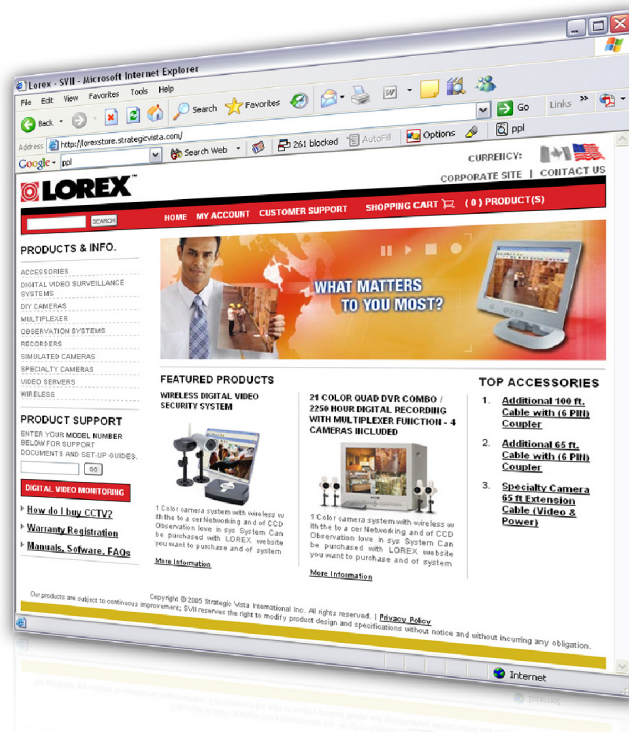
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